CRANBERRY SCOOPING is an art that requires just the right rolling motion to comb the ripe berries off the vines and still not damage the tender vines.

Monthly Review

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CRANBERRIES: New England's *Big* Little Industry

New England produces approximately two-thirds of the nation's cranberries. In 1952 New England growers grossed better than eight million dollars from cranberry sales.

In the post World War II period, cranberry growers through their national cooperatives developed an outstanding merchandising program which won the recognition of the entire agricultural world. This program is an important step toward the goal of a stabilized industry and demonstrates what cooperative action can achieve.

CRANBERRIES are a native North American fruit. History indicates that the Indians brought them to the first Thanksgiving in Plymouth and that Cape Cod sea captains used them to prevent dreaded scurvy in the 1700's. It was not until 1812, however, that Henry Hall of Dennis, Massachusetts, began experimenting with the cultivation of wild cranberries. Out of these experiments grew the commercial cranberry industry, first in New England, then in New Jersey and Wisconsin, and later in Oregon and Washington. Smaller quantities of cranberries are grown in Maine, Rhode Island, Michigan and on Long Island.

A record national cranberry crop of 1,075,000 barrels is estimated by the Bureau of Agricultural Economics for 1953. This is 36 per cent above the 1952 production; the previous high was the 1950 crop of 982,700 barrels. The 1948-1952 average was 899,740 barrels.

The Massachusetts cranberry crop is estimated at 640,000 barrels for 1953, 44 per cent above the 1952 harvest. The previous record crop for Massachusetts was 610,000 barrels in 1950. The 1948-1952 average was 547,000 barrels, about two-thirds of the national production. Leaders of the industry recognize the tremendous job ahead to move this year's record crop at profitable prices, but they point out that, with no carryover and with consumers now in the habit of using cranberries 12 months of the year instead of just at Thanksgiving and Christmas, the industry is in a strong position to attack the problem.

Specialized Culture Required

Cranberry culture is a highly specialized type of agriculture. Successful cranberry growing requires particular skills and knowledge, as well as a sizable capital investment for bog construction and maintenance. Usually from three to four years elapse before a newly planted bog bears a profitable crop and the grower can expect a return from his investment. The normal value of cranberry acreage is very high when compared with the value of acreage devoted to other specialized types of agriculture. Successful cranberry cultivation depends upon great care in selecting the proper location for the bog. The marsh land used must be acid because cranberries will not survive on nonacid soils. Too high soil fertility results in heavy vine growth with sparse setting of fruit. Covering the bog with a three-to-four-inch mulch of coarse sand lowers the fertility of the soil and helps to retard the growth of weeds. Thus a source of sand must be located nearby. An ample water supply is necessary to flood the bog quickly to prevent damage from frost or insects. It must be possible to drain the bogs fairly rapidly, either by gravity or by pumps, so that the vines will not suffer from lack of oxygen.

The cranberry industry is much better prepared to cope with the natural hazards than are some other

This article is adapted from the thesis "Financing the Cranberry Crop" by Bernard T. McGowan, Office of the Comptroller of the Currency, First Federal Reserve District. It is published by this bank because of its general interest to the New England community.

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branches of agriculture. This industry has developed effective tools for frost prevention and the control of some insects and diseases. The degree of control achieved over such harmful elements has a direct relationship upon the net returns to the grower.

Estimates indicate that in the nation slightly over 2,000 growers cultivate approximately 27,500 acres of cranberry bogs and use sizable acreage for sand banks and over 300,000 acres for water storage facilities. Cranberry production gives employment to more than 40,000 people throughout the season. Although the income from the first family bogs was used primarily as a means of raising the yearly taxes, today the national crop produces an average gross return of better than $14,500,000.

Construction Costs High

Construction costs of cranberry bogs have risen like all other construction costs. How high the cost is depends on the natural conditions and location of the marsh land, the amount of clearing and drainage necessary, the ability and experience of the men who oversee the work, the use of labor-saving machinery, and on wages. A good bog, well located and built, planted with the right varieties and given good care, should be nearly permanent. An initial investment of about $3,000 is usually required for every acre of cranberry bog that is constructed today. It costs from $100 to $200 an acre each year to care for the bog until it bears. The investment in a new bog before it begins to give the owner a possible return on his investment may amount to as much as $3,800 an acre.

Today in the Massachusetts and the New Jersey districts there are few new bogs being made. Increased bog acreage is reported yearly in the states of Wisconsin, Oregon and Washington, but in the East greater emphasis is currently being placed on bog renovation. Making over an old bog that is in a good location may call for the destruction of all growth and for grading, draining, sanding, and complete replanting. Complete bog renovations range in cost from $500 to $1,000 or more an acre, depending on the work required. In some instances unproductive bogs may be returned to a profitable condition by merely following good management practices.

Harvesting Techniques Unique

From early September through late October is harvest time. Since the harvest period is relatively short, especially if the season is late, many growers have to begin when the fruit is only partly colored. The longer the berries are allowed to remain on the vines, the deeper red their color, the larger their size, and the greater their sugar content. However, there is a definite period when certain varieties should be harvested. Experience has shown that the keeping qualities of the berries depend in a large measure upon the time and humidity conditions when they are harvested.

Harvesting methods vary from one region to another. In the East the picking is largely done with hand "scoops" which the pickers push ahead of them as they move through the bogs on their knees. They use a rocking motion to comb the berries from the vines with the wooden scoops.

At the completion of the dry harvest, as much as ten per cent of the crop may be in among the vines or on the ground. To save these berries, many growers flood their bogs and harvest the "floats" with the aid of flat-bottom boats. Because of the humid air prevalent in the East, these berries mold quite quickly. Therefore, they are taken directly to processors for immediate canning or freezing.

In Wisconsin, Oregon and Washington, the cranberry bogs are flooded so that the tips of the vines are above water and the berries float near the surface. Pickers then wade through the water, raking the berries from the vines with scoops. When growers use this method of harvesting, the loss of berries is small compared to that in dry scooping or machine picking.

In Wisconsin, about two-thirds of the crop is sold as fresh fruit. The berries to be sold fresh are stacked in field crates around the bogs where they dry in a few hours in the naturally dry air. More recently, a few of the larger growers have constructed drying machines.

Complete mechanization of the cranberry industry may be near at hand. Currently, mechanized harvest equipment is not so widely used in the East as in the West due to the many small, individually-owned, irregularly-shaped bogs which are not adaptable to machine harvesting. With the rising cost and scarcity of skilled labor, many growers may turn to machine harvesting of their crops. The owners of bogs not presently adaptable to machine harvesting may decide to renovate their bogs in order that the machines can be operated efficiently.

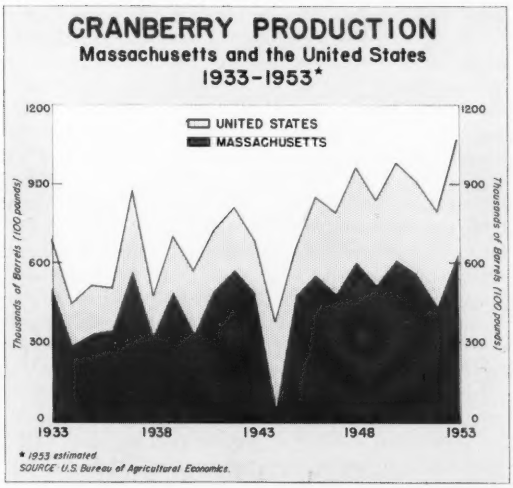
The need for the bog operators to curtail certain use of labor or to substitute machinery for men is obvious. According to a study by Bradford D. Crossmon, Research Professor in Farm Management at the University of Massachusetts, machines harvest an acre at an almost constant rate of speed regardless of yield, providing there are no wet or frosted berries or extra-long, heavy, upright vines. The normal rate per acre is about 10 hours. One machine can harvest from 3.6 barrels to 18 barrels per hour depending on yield. Even the lowest production for the machine, 3.6 barrels per hour, is nearly two and one-half times the 1.5 barrels per hour commonly expected from hand scoopers.

Cooperative Action Promotes Stability

Approximately 56 per cent of the growers in the nation are members of at least one of the two major grower cooperatives of the industry; these growers produce about 70 per cent of the crop. The other 30 per cent of the crop is raised by growers known in the industry as the independents.

The percentage of the total crop that is sold directly by the grower to the ultimate consumer is so small that it exerts little influence on the price obtained. The majority of the crop moves through the cooperative marketing agencies or through the several independent distributing agencies. While these independent distributing agencies usually market only their own berries and those grown for them under contract, they occasionally buy berries from other independent growers.

Cooperatives have been important in marketing cranberries for many years. The Eatmor Cranberries Cooperative, a federated cooperative selling agency, handles over 50 per cent of the cranberries sold on the fresh



fruit market. The National Cranberry Association, a centralized cooperative processor, operates canning plants in all producing areas. These plants make over 90 per cent of the processed cranberry products. Both of these cooperatives have conducted effective consumer advertising and merchandising for several years.

During World War II fresh cranberries lost some of their appeal for the housewife because she could not purchase the large quantities of scarce, rationed sugar required in cooking cranberries. The price of processed cranberries rose because of short crops and bidding among marketing agencies to get the available supplies. The apparent boom in processed cranberries then brought in many independent canners, and record packs of cranberries resulted.

During the period immediately following the war, the cranberry growers faced serious problems in spite of the strong organization within the industry. National production increased from an average of 715,000 barrels in the 1939-1948 period to 982,700 barrels in the 1950 season, a record at that time.

By 1948 it became apparent that processed cranberries could not be sold in the quantities packed under the many unknown and unadvertised brands. These supplies backed up in the channels of distribution, and the prices fell to disastrous levels. The carry-over inventory of berries for processing increased yearly to over 400,000 barrels or almost the equal of one half a normal crop. As this surplus grew, it depressed the market, particularly for the processed berries. The burden fell upon the fresh fruit market to sell unusually large quantities. Here the fresh fruit and the processed berries came into sharp competition.

Faced with the problem of reducing this inventory, the industry launched an aggressive marketing program that included experimentation in merchandising methods, and specifications for the preparation, standardizing and grading of the berries. The success of this program was outstanding. Currently, the industry holds practically no inventory of cranberries from previous years' crops.

Retailers often use cranberries, both fresh and processed, as a "sales leader." By doing this, the retailers have helped to broaden the market for cranberries in three ways: first by encouraging more people to consume cranberries, second by encouraging individuals to increase their purchases of cranberries, and third, by keeping cranberries before the consumer all year through the use of displays and advertising.

Two viewpoints exist regarding the competition between cranberries sold as fresh berries and those sold as sauce. The school favoring fresh fruit points out that the processed one-pound can contains but one-third of a pound of cranberries, the rest being sugar and water. Thus one-third pound sales have been promoted at the expense of one-pound sales when it has been difficult to obtain enough potential sales units to absorb the entire cranberry crop. Those favoring the sale of berries as sauce point to the many working housewives for whom the prepared sauce is a convenience. They also stress its value in broadening the market and making cranberry products available 12 months of the year.

To correct this situation, the growers again turned to cooperative action. They saw that the need was for orderly marketing of the cranberries, both fresh and processed. Out of the need grew the formation of the Cranberry Growers' Council, an organization of representatives of the two cooperatives. The grower-members of the two cooperatives assigned to the Council the responsibility for determining how much of the crop to sell fresh and how much to process. The Council also approved a sales promotional program with a substantial advertising budget. The three-year operational experiment of the Council has been encouraging. The large carry-over has been eliminated, and order and confidence have been restored to cranberry marketing. The success of the marketing program recommended by the Council is one of the most important developments in the industry in many years.

Financial Needs and Experiences

The early history of cranberry growing in the United States, and particularly in the Cape Cod region of Massachusetts, was for the most part pioneered by those natives who were fortunate enough to own suitable bog lands upon which they constructed the first cranberry bogs. Their investment was principally their own labor. The rapid success of these early bog ventures led to larger projects which required more labor and capital than the individual had at his disposal.

The first solution to this problem was by the way of a joint-venture partnership where the bog was constructed "on shares," an informal arrangement by which a few friends or relatives each contributed what he was capable of giving; namely, land, labor, or funds. Each then shared in the partnership to the extent of his contribution. In many cases, however, there was not even a formal arrangement for dividing the real estate or the ensuing crops. In some instances, the verbal arrangements made by the original parties are still being used by the descendants of the original owners.

Many of the early growers who planned to extend their holdings sought financial help from individual lenders. Here was the beginning of large concentration of holdings by the grower-lenders. The terms of their loans were largely favorable to the lender.

In years past, it was considered that within a 10-year period a bearing bog would repay its original construction cost and the expense of maintaining it prior to bearing. Today, with high operation costs reducing earnings, leaders of the industry indicate that full repayment cannot be achieved in much less than a 15-year period. Financing for construction purposes, then, is in the nature of capital lending and not within the usual functions of commercial banking. Some financing for construction purposes has been done by savings banks where the mortgages were written to cover other real estate of the borrowers in addition to the bog.

For many years, commercial banks were reluctant to make loans to purchase established bogs, largely because of the rather hazardous crop prospects from year to year and the lack of an established market for the crops. More recently, with the increased use of scientific knowledge in cranberry culture and with the means at hand for lessening the natural risks which make the annual crop uncertain, commercial banks in cranberry growing areas are more willing to consider bog loan applications upon their own merits. Another reason for the growing interest of the banks is the more orderly marketing program introduced by the Cranberry Growers' Council and its stabilizing influence over the entire cranberry industry.

From correspondence with banks situated in the cranberry-growing regions of the country, it was found that experience with direct short-term loans to growers has been satisfactory. The usual practice is to make crop production loans to cranberry growers, generally supported by the financial responsibility of the borrower, with repayment schedules depending upon the estimated income from operations and with full liquidation required each season. In some instances the banks add further support to these loans by taking a crop mortgage to assure themselves of receiving all returns from the cranberry sales. If sold through a cooperative pool, they usually request an assignment and an acknowledgment from the cooperative. To effect liquidation, the notes under which these short-term lines are usually drawn have a maturity date to coincide with the date the funds will be available from crop sales.

Method of Appraisal Important

These banks also report that they have never experienced a loss on any loan to a cranberry grower for the purchase of existing bogs. Although they have sustained no losses, banks in Oregon, Washington and Wisconsin reported that they have experienced some very difficult workouts in loans of this type. The principal difficulty in these loans was the unrealistic appraisals made of the bog property. Apparently more conservative appraisals are made in the East. Furthermore, eastern banks require the borrower to put in from his own funds at least as much as the bank itself. Also, in the East there is a hard and fast rule that credit for bog purchases will be extended only to experienced growers.

Since cranberry culture is a very specialized type of agriculture, it requires a more comprehensive method of appraisal than is generally necessary for many other agricultural pursuits. To aid in this appraisal, a more detailed appraisal form than those now commonly in use would be helpful. An ideal form would have two sections: one concerning the grower with strong emphasis on experience, character, capacity, and capital; the other concerning the real estate in which data about production and characteristics of the bog, location of the bog, the condition of the cranberry vines, and the supplies of sand and water would be noted.

Bankers and growers who were interviewed feel that this method of bog appraisal is a more realistic approach in determining the fair value of cranberry bog property for mortgage loan purposes than the conventional real estate appraisal forms now in use. With cranberry bog property having a value of $2,500 to $3,000 an acre, the maximum amount most lenders will advance is 50 per cent of the per acre value, and that amount only when the bog property and management are excellent.

In discussions and correspondence with leading bankers and spokesmen for the industry, the conclusion could not be escaped that the cooperatives in the post World War II period were actively taking care of the financing needs of their members and that their policies were such as to preclude successful bank competition. Because this financing activity has since been curtailed, many growers are now obliged to look to alternative sources of credit.

Long-Term Prospects Encouraging

In weighing the outlook prospects for the cranberry industry, the favorable features seem to outweigh the unfavorable ones. An astute, aggressive sales promotional program, which has won recognition from the whole agricultural world, is one of the greatest assets the industry possesses. An integral part of that program is the effort directed at convincing the housewife that cranberries are a year-round food. Although the early program stressed the thought that cranberries were an essential component of chicken or turkey dinners, more recently the emphasis has been broadened to include cranberries with other meats.

Growers are relatively few in number and can, if they will, act cooperatively in a marketing program. The support given by growers to the Cranberry Council is an example of this. Conversely, lack of continued cooperation among the growers could undo the results previously achieved and scuttle or weaken the marketing program.

On the adverse side it must be said that capital and production costs are substantial, that in periods of declining prices such costs press heavily against earnings. Economic pressures have no respect for age. The fact that the commercial cranberry industry still survives after 140 years of operation is no insurance that it will continue to survive. The commendable progress in working out from under the huge carryover inventory in the past five years is indicative of what cooperation can accomplish. An additional clue as to the ability of the industry to solve its own problems will come with the marketing of the huge 1953 crop.

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FEDERAL RESERVE BANK OF BOSTON

Trust Department Net Earnings Decline in 1952

AGGREGATE NET EARNINGS of trust departments of New England banks declined from 1951 to 1952. Although gross income rose, total costs advanced more rapidly and net earnings fell almost 28 per cent. Individual trust departments, however, showed varying results. Only half of the 50 banks which reported income and expense data for both 1951 and 1952 had lower net earnings in 1952. Declines in net earnings were sharpest in the smaller trust departments although many larger ones showed moderate drops. Banks reporting larger profits generally experienced both an increased flow of new business and decreased unit costs for services. Higher net earnings were well distributed among all size groups.

Aggregate gross income was 2.6 per cent greater in 1952 than in 1951. Two-thirds of the individual trust departments reported increases in gross. In most instances gains were limited to 10 per cent. A few small banks experienced much larger increases, probably resulting from the settlement of large estates. Most of the trust departments reporting a decrease in gross income were in the middle-size class, although some of the smallest trust departments experienced greater relative declines.

A substantial part of larger gross income was used to meet increased salary and wage payments. Total costs excluding income taxes rose nearly nine per cent between 1951 and 1952. Costs advanced in all except five trust departments. Changes in expenses showed far greater uniformity than changes in income. Many of the cost items are relatively fixed, whereas some sources of income vary considerably.

Fifty-four New England trust departments reported income and expense data for the year 1952. They held assets in their trust accounts valued on their books at over $6 billion and had aggregate trust department income of $17.7 million.

The typical trust department received 53 per cent of its total operating income from personal trusts and guardianships, 23 per cent from personal agencies, 19 per cent from estates, and 5 per cent from corporate accounts. There were wide variations around these averages. Estates were relatively more important as a source of income to the smaller banks, while corporate accounts figured more prominently in the larger ones.

Thirty-four of the 54 participating trust departments showed a net profit in 1952. The average net earnings-to-income ratio was slightly over 12 per cent. Most of the largest trust departments were profitable. The size of a trust department, however, appears to have more effect on the stability of net earnings ratios than upon their magnitude. Larger trust departments chalk up more steady although sometimes less spectacular net earnings ratios than smaller ones.

As in previous years, individual expense items are expressed as a percentage of total expenses before overhead. An accompanying table shows the breakdown of direct operating expenses for the past three years.

Salaries and wages averaged 68.2 per cent of total expenses before overhead in 1952. Individual ratios ranged from 59.8 to 79.8 per cent, but ratios in three-fifths of the trust departments did not vary more than three points from the average. Forty-one trust departments had expenses connected with employee pension and retirement plans, averaging 3.0 per cent of total direct expenses. Larger trust departments generally contributed more to pensions than smaller ones. Personnel insurance, such as life insurance premiums, medical insurance and fidelity bonds, averaged 1.4 per cent of expenses before overhead.

DISTRIBUTION OF TRUST DEPARTMENT EXPENSES IN 1950, 1951, 1952

Trust Department Expense Item	*Percentage of Total Expenses Before Overhead*		
	1950	1951	1952
Salaries and wages	68.9	68.8	68.2
Pensions and retirements	3.3	3.8	3.0
Social Security programs	1.2	1.7	1.7
Personnel insurance	1.6	1.6	1.4
Total Personnel Expenses	75.0	75.9	74.3
Occupancy of quarters	8.2	7.5	7.7
Furniture and equipment	2.5	2.0	1.8
Postage and supplies	3.6	3.7	3.5
Telephone and telegraph	1.2	1.3	1.1
Advertising	2.5	2.7	2.7
Directors' fees	1.7	1.8	1.8
Legal fees	0.8	1.1	1.1
Information services	2.0	1.8	2.2
Examinations	1.7	1.6	1.5
Miscellaneous expenses	2.2	2.4	2.3
Total Direct Expenses	100.0	100.0	100.0

Details do not add to 100 in all cases because of the averaging technique used and because of rounding.

Occupancy of quarters was the second largest individual cost item. It accounted for 7.7 per cent of total direct expenses in the typical trust department. Furniture and equipment charges were 1.8 per cent of total direct expenses for the average bank. This expense was generally more important in the larger departments, probably due to greater mechanization of their operations.

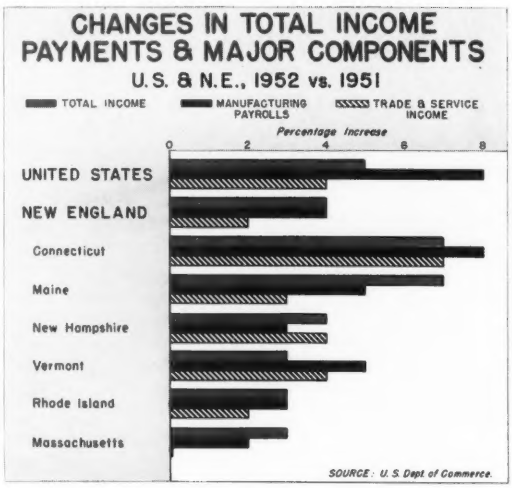
Charges for specialized services such as advertising, information services, legal fees and directors' fees generally increased in relative importance as the size of the trust department decreased. This reflects the minimum needs of smaller departments for these services.

An allowance for overhead must be added to direct operating expenses to get an accurate picture of total operating costs of a trust department. Twenty-two banks estimated the trust department's share of the bank's overhead as 15 per cent of total direct trust department expenses. Twenty-six banks used a more detailed method of computing overhead. Only seven arrived at an overhead allowance that exceeded 15 per cent of total direct costs.

Fifty trust departments reported individual expense items for their personal accounts separately. Of these, 32 showed a profit. The overall earnings-to-income ratio on personal accounts was 10.7 per cent.

Six trust departments furnished a detailed breakdown of their corporate account expense items. All but one of these were profitable. The overall net earnings-to-income ratio on corporate accounts was 14.7 per cent.

Income Payments Set New Record



TOTAL INCOME PAYMENTS to individuals rose in every New England state in 1952. Nationally, income increased in all except four states and reached a record high of $255.4 billion, five per cent above the 1951 level. Income payments in New England also set a new record of $16.6 billion, an advance of four per cent from the preceding year. Individual state gains ranged from seven per cent in Connecticut and Maine to three per cent in Massachusetts, Rhode Island and Vermont.

Increased income reflected moderate advances in most lines of economic activity in 1952. Agricultural income was the only major source of income which declined from 1951 to 1952 in the United States. In New England, however, income from agriculture increased four per cent, mainly because Maine scored a spectacular 69 per cent gain in farm income. Higher prices for potatoes, particularly in the first half of the year, were largely responsible for this increase. All other New England states except Connecticut had less income from agricultural sources in 1952 than in 1951.

Manufacturing payrolls accounted for nearly one-third of all income in New England in 1952. Every New England state received more than the national average of 24.5 per cent of its total income from factory payrolls. Only one of the 48 states received a larger proportion of its total income from factory payrolls than did Connecticut, and only four states exceeded Rhode Island's dependence on manufacturing.

Factory payrolls increased by four per cent in New England and eight per cent in the nation in 1952. The difference was largely due to New England's heavy dependence on the textile industry, which was in the doldrums during much of the year. Massachusetts and Rhode Island suffered most from the textile slump. Textile manufacturing payrolls fell 14 per cent in Massachusetts and four per cent in Rhode Island. Increases of 9 to 12 per cent in payrolls in the important leather industry in Maine, New Hampshire and Massachusetts helped to offset the decline in wages and salaries of textile manufacturers.

Connecticut scored substantial payroll gains in the aircraft and shipbuilding industries. These advances offset below-average increases in most other important industries and gave Connecticut an overall expansion of eight per cent in manufacturing payrolls. Vermont's five per cent increase in factory wages and salaries was mainly due to gains in the metalworking industries.

Construction payrolls in 1952 contributed a smaller share of total income payments in New England than in any other section of the country. Only 3.4 per cent of New England's income came from the construction industry, while the national average was 4.1 per cent. Contract construction payrolls rose four per cent in New England last year, and nine per cent in the country as a whole.

Government income payments made up 15.2 per cent of total income in New England last year, only slightly less than in the nation as a whole. Income from governmental sources increased nine per cent in both the region and the country.

Trade and service income was also only slightly less important in New England than in the United States, accounting for approximately one-fourth of all income. But trade and service income increased faster in the nation than in the region.

The chart shows that New England and most of its states lagged behind the national increase in total income, manufacturing payrolls, and trade and service income in 1952. This is in line with the tendency for regional differences in income to narrow as New England and other older and more highly industrialized sections of the country grow at slower rates than less fully developed areas. For example, nine states[1] which are quite similar to New England, when classified according to sources of income, also showed a composite gain that trailed the national average in 1952. Their gain was slightly greater than New England's, largely because they depended more on industries which had a better demand situation than the textile industry during 1952.

The comparative well-being of individuals is more accurately shown by dividing total income by population to arrive at per capita income data. These figures show that New England has remained relatively prosperous. New England had a per capita income of $1,749 in 1952. This exceeded the national average of $1,639 by seven per cent. Within New England, however, there were large differences in per capita income. Connecticut and Vermont represented the extremes. Connecticut's per capita income of $2,080 surpassed that in all except two states and the District of Columbia and was 27 per cent above the average in the nation. Vermont, with a per capita income of $1,336, was 18 per cent below the average for the country. Per capita incomes of $1,361 in Maine and $1,530 in New Hampshire were also below the U. S. average, while Massachusetts' per capita income of $1,749 and Rhode Island's $1,655 exceeded the national average.

[1] New York, New Jersey, Delaware, Pennsylvania, Ohio, Michigan, Indiana, Illinois, and Wisconsin.

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N. E. EMPLOYMENT:

Shift to Durables Continues During Korean War

THE SIGNING of the truce in Korea found New England industry operating near its all-time high. In June, the region's important manufacturing industries employed more people than in any month since the end of World War II except February 1951. Nonfarm employment in mid-1953 was surpassed only in December of last year when seasonal expansion in trade and government boosted employment in that month to a record high. Unemployment throughout the region is close to the postwar low and has been substantially reduced even in those textile centers which have long been plagued by labor surpluses. Weekly and hourly earnings of the region's production workers are at the highest levels ever. Although some declines were noted in July, principally because of vacation shutdowns and seasonal layoffs, the usual fall upturn in business activity should result in a continued high level of employment.

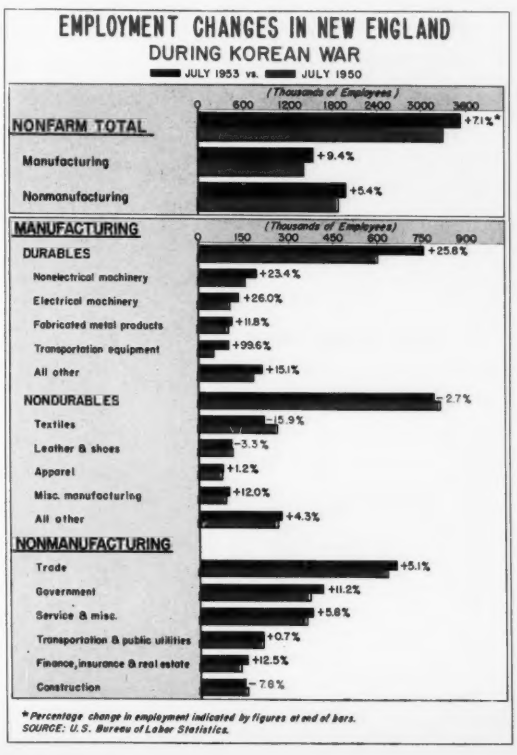
Since the start of the Korean war, nonagricultural employment in New England has increased by over seven per cent. Stimulated by the demand for defense goods plus a continued strong demand for most consumer goods, manufacturing employment has increased by 9.4 per cent in the past three years. The durable-goods industries, showing a job gain of over twenty-five per cent, have been largely responsible for the overall increase in employment. The transportation equipment industry, sparked by the expansion of aircraft production in Connecticut, has nearly doubled its work force since the middle of 1950. In the same period, the number of workers has increased by more than 20 per cent in the electrical and nonelectrical machinery industries which, next to textiles, have the region's largest factory payrolls. Employment in ordnance plants has increased by 64 per cent, instrument manufacturers have taken on 30 per cent more workers and rubber plants have expanded their forces by 23 per cent.

All of the durable-goods industries have expanded during the Korean war period and the employment gains made have been more than sufficient to offset the loss of jobs in the soft goods industries. Stimulated by fears of shortages, consumer demand for many nondurable goods spurted after the start of hostilities. By early 1951, however, production had outstripped demand for such nondurables as textiles and shoes and operations were curtailed. In many soft goods lines, some recovery has taken place in the past year.

The major part of the expansion in employment during the Korean war took place prior to 1953 both nationally and in New England. Since the first of the year, seasonal gains in the nonmanufacturing industries, especially contract construction, have accounted for the largest share of the 2.5 per cent increase in number of nonfarm jobs in New England. Manufacturing employment increased by less than one per cent between January and June, with the durable and nondurable goods industries sharing about equally in the gains. The fabricated metals, electrical machinery, transportation equipment and instrument industries continue to expand, but employment in the nonelectrical machinery plants has been dropping off for several months. Food processing plants and firms in the miscellaneous manufacturing groups are responsible for the largest gains among the nondurable goods industries. But expansion seems to be tapering off even in defense industries. Scattered layoffs are reported in a number of industries and overtime has been reduced in many lines.

As a result of the defense-stimulated expansion which has taken place during the past three years, there has been a further shift in the distribution of industrial employment in New England toward the durable-goods industries. Between July 1950 and July 1953, the proportion of employment accounted for by the durable goods industries increased from 42.6 per cent to 48.9 per cent of all the region's manufacturing employment.

The increased importance of the hard goods industries in the composition of New England employment has been instrumental in raising the level of average weekly earnings of the region's production workers. Although work weeks are generally longer than before the Korean war, the major factors contributing to the rise in earnings have been the shift to the higher paying defense stimulated industries and increases in wage rates.



Monthly Review
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Department Store Indexes Revised

CHANGES in consumer buying habits necessitate periodic reviews of the factors used to adjust retail sales and inventory data for seasonal variation. Such a review of the seasonal adjustment factors for indexes of sales and stocks of department stores in the Boston Federal Reserve District has recently been completed.

The analysis of seasonal sales patterns for recent years indicated that department store sales in the months of March, July, August and December were somewhat larger in proportion to annual sales than was indicated by the old adjustment factors, while those in January, April, May, September and October were smaller. An accompanying chart, based on the revised factors, shows the current percentage of total annual sales expected in each month of an average year by department stores in the Boston District.

Somewhat less marked shifts have occurred in the seasonal pattern of department store stocks. It was found that the relative level of stocks held by department stores was slightly higher in April, June, July and August and slightly lower in January, March, May and November than indicated by the old adjustment factors. These changes are reflected in the seasonally adjusted indexes shown in the accompanying table for the period 1947 to date.[1]

Similar reviews of seasonal adjustment factors have been made by the other Federal Reserve Banks in accordance with Federal Reserve System policy. Revised indexes for the districts and the nation are shown in the Federal Reserve Bulletin for August 1953.

[1] Sheets showing index numbers and seasonal factors for the entire period covered by the indexes (1919 to date) are available upon request from the Research and Statistics Department of the Federal Reserve Bank of Boston.

DEPARTMENT STORE SALES INDEX NUMBERS

1947-49 AVERAGE =100

Boston Federal Reserve District

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual Average
Without seasonal adjustment													
1947	71	72	96	96	102	98	69	74	105	99	130	178	99
1948	73	74	97	99	102	103	75	75	111	110	121	181	102
1949	79	76	82	108	102	99	66	74	105	99	124	174	99
1950	78	74	88	102	97	99	81	86	113	104	123	186	103
1951	99	83	94	95	101	98	73	82	110	105	129	188	105
1952	81	75	87	103	102	103	73	83	111	111	127	193	104
1953	83	80	95	101	106	103	76	79					
Adjusted for seasonal variation													
1947	96	94	97	98	102	100	98	99	100	96	105	101	—
1948	98	99	96	103	102	104	105	100	103	106	99	103	—
1949	103	102	95	104	102	99	93	97	98	98	101	98	—
1950	98	99	101	99	97	99	113	112	106	103	101	104	—
1951	125	111	102	100	101	98	102	102	103	105	106	105	—
1952	103	100	103	101	102	103	102	103	104	111	105	107	—
1953	105	106	105	106	106	103	106	99					—

DEPARTMENT STORE STOCKS INDEX NUMBERS

1947-49 AVERAGE =100

Boston Federal Reserve District

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual Average
Without seasonal adjustment													
1947	84	91	97	94	90	84	85	92	96	112	117	95	95
1948	94	101	110	110	106	96	94	100	108	117	125	98	105
1949	94	96	105	104	103	95	90	91	100	111	118	98	100
1950	94	99	108	108	107	98	92	106	116	133	140	113	109
1951	111	122	136	136	132	123	117	121	125	130	132	108	124
1952	104	106	113	115	112	103	100	105	113	124	131	104	111
1953	103	108	118	124	121	110	106						
Adjusted for seasonal variation													
1947	96	96	94	93	91	91	90	92	93	99	100	103	—
1948	104	106	107	107	104	102	103	106	105	104	107	104	—
1949	104	102	102	101	101	101	99	96	97	98	101	104	—
1950	104	104	104	105	105	105	101	111	113	117	120	120	—
1951	123	128	132	133	131	130	129	126	121	115	113	115	—
1952	116	112	111	110	111	110	110	109	110	110	112	111	—
1953	115	114	116	119	120	117	117						—